40. The apparatus as claimed in claim 88, wherein said tools have upper and lower positions, comprising a separate tool support feed (5a, b) coordinated with each tool support (1,2) so that said upper and lower positions of said at least two tools (3) can be combined.

41. The apparatus as claimed in claim 39, wherein said pair of tool supports (1b, 2b; 1c, 2c) are held on a common support part (8) and can be displaced together with said common support part (8).

42. The apparatus as claimed in claim 39, wherein said tool supports (1,2) have, in a lateral direction, a plurality of positionable holders for said at least two tools (3), said at least two tools (3) being selectable as required from a group of cable-processing tools.

43. (Amended) The apparatus according to claim 42, wherein said group of cable-processing tools consists of at least one of cutting tools, severing tools, clamping tools, marking apparatuses and grinders.

44. (Amended twice) The apparatus as claimed in claim 39, wherein said pair of tool supports (1,2) are continuously adjustable relative to one another in a lateral direction or toward and away from said first transport path (100).

45. The apparatus as claimed in claim 39, wherein said at least two tools (3) are arranged in pairs and comprise at least two pairs of blades.

46. The apparatus as claimed in claim 45, wherein one blade of one pair of said pairs of blades is above said cable and another blade of said one pair of blades is under said cable.

47. The apparatus as claimed in claim 39, wherein said tool support feed (5) comprises at least one motor and a programmable microprocessor for control of said at least one motor.

48. The apparatus as claimed in claim 39 wherein said tool support feed (5) comprises a cable absence sensor.

49. The apparatus as claimed in claim 47, wherein a plurality of tool support feeds (5) holding a plurality of tool supports (1,2) are arranged along said first transport path (100).

50. A continuous cable processing apparatus, comprising:
a pair of tool supports (1,2) for holding at least two tools (3) in pairs, and
a tool support feed (5) for positioning of at least one of said at least two tools (3a, b, c, d) in a direction perpendicular to the working direction of said at least one of said two tools, across a first transport path (100), along which a cable (107) whose insulation is to be stripped can be inserted in its feed direction, wherein
an encoder (41) is arranged on an adjuster (14) for tool setting and monitors movement of said adjuster (14) in an operating state in order to perform at least one of the following: to detect completed closure of said at least one of said at least two tools (3), to stop said drive movement, to calibrate and to initialize said drive or said encoder.

51. A cable processing apparatus according to claim 91, wherein connection between said drive (23;16) and said spindle (14) is elastic.

52. A process for operating a continuous cable insulation stripping apparatus having tool holders and insertable tools, having at least the following steps:

employing a monitor that monitors an open state of said tool holders (1) or tools (3) and reduces a drive force of a drive motor (23; 16) shortly before closing said tool holders or tools, so that said drive motor brings said tool holders into a closed position with slight force.

53. A continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative to one another and can be opened and closed in a cable-dependent and feed-controlled manner and can be moved together lateral to said transport path.

54. Apparatus as claimed in claim 53, wherein a cable is receivable in a gap between opened rollers (A, B; 111) or belts (C, 112) and is transported onward by means of said rollers (111) or said belts (112) that are moved toward one another and held against one another under a contact pressure.

55. Apparatus as claimed in claim 53, wherein said rollers (111) or said belts (112) belonging to two pairs of rollers or belts (A, B; 111; C; 112), are programmably adjustable relative to one another by at least one of stepping motors, a control, a programmable circuit, and at least one pressure sensor for measuring or evaluating contact pressure on said cable (107).

56. A cable apparatus as claimed in claim 53, further comprising a control member having a computer which, in an operating state, after input of cable diameter, cable type designation, and desired insulation stripping length, automatically calculates and sets at least one of an initial gap of said rollers or belt drive (A, B;

111; C; 112) and a contact pressure for stripping of insulation sections, and appropriately controls said drives.

57. A continuous cable processing apparatus having drive and processing stations, wherein a common baseplate and a front plate is provided, on which at least one of drive, feed, tool holders, and measuring or marking modules can be provided in a mountable manner at predetermined positions along a cable transport path and wherein at least one of said modules has its own front plate, independent from other said front plate(s).

58. The apparatus as claimed in claim 57, wherein at least one of pairs of continuous belts (112) or rollers (111) of said feed module can be removed without replacement or can be replaced by at least one of drive rollers (111) or pairs of continuous belts (112), or a continuous belt pair module (C) can be replaced by roller modules (A, B), and vice versa.

59. A continuous cable processing apparatus having drive and processing stations, with at least one moveable guide (40, 21) associated with a processing station (3), wherein said guide (40, 21) is connected to a control that alternatively moves said guide completely from a cable transport path (100) during a cable processing mode.

60. The apparatus as claimed in claim 59, wherein at least one guide (40, 21) is arranged on that side of said processing station which faces a cable outlet.

61. The apparatus as claimed in claim 59, wherein said guide (40, 21) is raisable in a radial plane relative to said cable transport path.

62. The apparatus as claimed in claim 59, wherein one guide (40) each, is arranged in front of and behind said processing station (3).

63. A process for controlling a continuous cable insulation stripping apparatus, comprising:

employing a program that contains a control for controllable driving of said apparatus, said program comprising program steps coordinated with individual process steps,

combining a plurality of such program steps to form groups of operations, in which a step sequence is predetermined and control parameters of at least one step are selectable or adjustable, and

calling up groups of operations to trigger a plurality of program steps that are preprogrammed in such a manner as result in control of drives in step sequence.

64. The process as claimed in claim 63, wherein at least one of an individual program, process steps and control parameters linked therewith is set to at least one of none and desired other parameters via an input unit.

65. The process as claimed in claim 63, wherein a plurality of program groups are combined to form overlapping program groups, and wherein individual program groups are shown as an overview and subsequently in detail on a display, said display permitting interactive correction of given values in individual program steps.

66. A continuous cable insulation stripping apparatus, comprising along a first transport path definable by a cable axis,

a cable transport apparatus, which comprises at least one first and at least one second transporters (A, B; C; 111, 112, 113) for linear transport and holding of a cable (107) along said first transport path,

at least one blade station (E, F, G; 115) for holding at least one blade to be moved toward said cable axis along a working direction for processing said cable (107), said blade station (E, F, G; 115) being arranged between two of said transporters (A, B; C, 111, 112, 113) and, before and after processing of said cable (107), said transporters holding at least one of said cable and one each of cable end regions (107a, b) facing one another and created by said blade station, parallel to said first transport path (100) and so as to be movable in a cable longitudinal direction, wherein at least one of said blade station (E, F, G, 115) and said transporter (A, B; C. 111, 112, 113) is displaceable approximately at right angles or at right angles to said first transport path (100) and perpendicular to said working direction of said blade by a drive.

67. Apparatus as claimed in claim 66, wherein displaceablility of one or more transporters (A, B; 112, C, 113) permits parallel displacement of at least one of said cable (107) and at least one cable end (107a, b) from said first transport path (100) to at least a second transport path (102, 103) and wherein a further processing station (16, 17) can be coordinated with said second transport path (102, 103).

68. The apparatus as claimed in claim 67, wherein said further processing station comprises at least one transport or processing station (16, 17), selected from the group consisting of an insulation stripping station, a sawing station, a cutting

station, a twisting station, a shaping station, a crimping station, a soldering station, a cable processing station and a manipulator arm.

69. The apparatus as claimed in claim 67, wherein at least one transporter (A, B; 4; C, 112, 113), is guided in a linear guide (110) transversely to said transport path (100) and can be moved by a drive apparatus (111,114).

70. The apparatus as claimed in claim 69, wherein said transporter is located one each on both sides of said blade station (E, F, G, 115).

71. The apparatus as claimed in claim 67, wherein a drive apparatus (111, 114) of each movable transporter (112, 113) and at least one independent transport drive is connected to a common control (200), and at least one further processing station (16, 17), so that all longitudinal and transverse movements can be performed in a coordinated and time-optimized manner, in synchronization with the processing steps.

72. The apparatus as claimed in claim 71, wherein said transport drive is located one each on both sides of said blade station (E, F, G, 115) and said common control (200) also controls said blade station (E, F, G, 115).

73. The apparatus as claimed in claim 67, wherein two transporters (112) are connected to one another by a common motor-controlled actuator (101) so that transverse adjustment of one transporter (112a) results in a diametrically opposite lateral adjustment of the other transporter (112b).

74. The apparatus as claimed in claim 67, wherein at least one transporter (112b) is connected to at least one of said blade station (115 and tool support by a common, motor-controlled actuator (10[41) so that transverse adjustment of one transporter

(112b) results in a diametrically opposite transverse adjustment of at least one of said blade station (115) and said tool support.

75. (Amended): The apparatus as claimed in claim 39, further comprising a first processing station wherein the first processing station comprises at least one rotatable blade or a second processing station having a second rotatable blade (030), whose axis of rotation is along an at least one transport path.

76. (Amended three times) A process for stripping insulation of a cable (107) using an apparatus as claimed in claim 75 having at least the steps of:

holding a cable (107) in a centered manner on at least two sides of the cable during incision with the second blade (030), and

arranging at least one holding point in an immediate vicinity of said second blade (030).

77. (Amended three times) The process as claimed in claim 76, comprising at least one of said clamping and centering apparatus (A, B; 111, C, 112; 013) that comprise jaws which lie in a plane, each of said jaws have a retaining surface, which retaining surfaces are approximately perpendicular to a radial plane with the cable (107) and are formed in such a way that fully closing of said clamping and centering jaws (A, B; 111; C, 112; 013) is possible.

78. (Amended twice) The apparatus as claimed in claim 75, wherein a cutting apparatus comprises at least two blade jaws (030) which lie in a plane, each having a cutting edge, which cutting edges are formed at least approximately parallel to one tangential plane of a cable (107) and can be fully closed and can be advanced to

E4

give different initial contact points on a cable sheath, depending on cable diameter.

Sub F1) E5

79. (Amended): The apparatus as claimed in claim 75, wherein said processing station, and at least one centering clamping apparatus (A, B; 111, C; 112. 013) are in a form of an automatic processing module (057) which is removably mounted on a continuous cable processing machine (058).

80. The apparatus as claimed in claim 79, wherein said module (057) is connected to a frame of said continuous cable processing machine (058) by a hinge (059) so that said machine can be swiveled out of an axial working position inclined relative thereto.

Sub F1) E6

81. (Amended three times) The apparatus as claimed in claim 77, wherein said clamping and centering jaws (013) are L-shaped in section with retaining surfaces that provide a centering surface for a cable sheath and ends that project directly adjacent to said second blade (030).

82. (Amended three times) The apparatus as claimed in claim 78, wherein, for controlling said rotatable blade (030) and said second rotatable blade across said first transport path (100), displaceable rods (060) are provided which have, in a region of a plurality of blade holders (015), wedge surfaces (016) which cooperate with diametrically opposite formations of said plurality of blade holders (015), said rods (060) coming into contact at another end with a wedge strap (018) which is displaceable along said first transport path (100) by nonrotatable actuators (061).

83. The apparatus as claimed in claim 66, wherein said first and second transporter (A, B; C: 112, 113) have at least one of one pair of rollers (A, B; 111) and one pair of continuous belts (C; 112).

AWE(1) E7 84. (Amended twice) The apparatus as claimed in claim 39, wherein at least one of an upper and a lower roller (111), continuous belts (112) of a pair of rollers, a pair of continuous belts, respectively, and upper and lower tool holders (1) are each displaceable transversely with respect to said first transport path (100), relative to an opposite part in each case, so that a twisting procedure can be performed on a cable (107) lying in between.

AWE7 E8 85. (Amended): The apparatus as claimed in claim 39, wherein a guide apparatus (9) which can be swiveled at least one of laterally and upward or downward is provided to increase insulation stripping lengths, in order to enable a cable (107) already lying on another side of said at least two tools (3) to be moved back against a feed direction without collision between the cable and the guide apparatus.

86. The apparatus as claimed in claim 39, having a cable processing station and tool holders, comprising:

a monitoring member which monitors an open state of said tool holders (1) and reduces a drive force of a drive motor (23; 16) shortly before closing of said tool holders, to bring said tool holders into a closed position with slight force.

AWE(1) E9 87. (Amended twice) A cable processing apparatus as claimed in claim 39 having a first and a second belt drive for a cable feed, wherein a gripping apparatus is coordinated with said second belt drive (112b); said second belt drive (112b)

releasing said cable (107) so that said cable (107) can be removed by said gripping apparatus.

88. (Amended) A continuous cable insulation stripping apparatus comprising at least one tool, at least one tool support , and a positioner that relatively positions the at least one tool support in a direction perpendicular to a working direction of the at least one tool wherein said positioner positions said at least one tool support to more than two positions.

89. (Amended) The apparatus as claimed in claim 44, wherein said tool supports are adjustable toward and away from said first transport path (100).

90. The cable insulation stripping apparatus as claimed in claim 44, wherein said tool supports (1,2) are adjustable independently of one another.

91. The cable processing apparatus according to claim 50, wherein said adjuster comprises an adjusting spindle.

92. The cable processing apparatus according to claim 50, wherein said adjuster adjusts as a function of drive movement of a drive (23; 16) by comparison with a comparable encoder value of said drive (23; 16) on said encoder.

93. Apparatus according to claim 51, wherein said connection comprises a coupling via a toothed belt (24).

94. Apparatus as claimed in claim 54, in which said gap is computer controlled.

95. Apparatus as claimed in claim 55, in which said control has an automatic reset.

96. Apparatus as claimed in claim 57, in which said modules are exchangeable.

97. The apparatus as claimed in claim 59, wherein one drive station each are arranged in front of and behind said processing station.

98. The apparatus according to claim 62, in which said guides are arranged symmetrically with respect to said processing station.

99. The apparatus according to claim 97, in which said drive station is arranged symmetrically with respect to said processing station.

sub F1 E11

100. (Amended twice) The apparatus according to claim 88, wherein displaceablility of one or more transporters (A, B; 112, C, 113) permits displacement of at least one of cable (107) and at least one cable end (107a, b) from a first transport path (100) to at least a second transport path (102, 103), and wherein a processing station (16, 17) can be coordinated with said second transport path (102, 103).

sub F1 E12

101 (Amended). The apparatus according to claim 100, wherein said processing station comprises at least one transport or processing station (16, 17), selected from the group consisting of an insulation stripping station, a sawing station, a cutting station, a twisting station, a shaping station, a crimping station, a soldering station, a cable processing station and a manipulator.

sub F1 E13

102. (Amended twice) The apparatus according a claim 100, wherein at least one of the transporters (A, B; 4; C, 112, 113)[,] is guided in a linear guide (110) transversely to said first transport path (100) and can be moved by a drive apparatus (111, 114).

103. (Amended twice) The apparatus according to claim 100, wherein the one or more transporters are located on both sides of said processing station (E, F, G, 115).

104. (Amended twice) The apparatus as claimed in claim 100, wherein a drive apparatus (111, 114) of each of the one or more transporters (112, 113) and at least one independent transport drive is connected to a common control (200) and the processing station (16, 17), so that longitudinal and transverse movements of the one or more transporters can be performed in a coordinated and time-optimized manner.

E13

Sub F17

105 (Amended). The apparatus as claimed in claimed 100, wherein transport drives are located on both sides of said processing station (E, F, G, 115) and a common control (200) also controls said processing station (E, F, G, 115).

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Sub F17

106. (Amended) The apparatus as claimed in claim 100, wherein two of the transporters (112) are connected to one another by a common motor-controlled actuator (101) so that transverse adjustment of one transporter (112a) results in a directly opposite lateral adjustment of the other transporter (112b).

E15

107. (Amended twice) The apparatus as claimed in claim 100, wherein at least one of the transporters (112a) is connected to at least one of said processing station (115) and a tool support by a motor-controlled actuator (101) known per se.

Sub F17

108 (Amended). The apparatus as claimed in claim 100, wherein the processing station comprises at least one rotatable blade or a second processing station having a second rotatable blade (030), whose axis of rotation is along an at least one transport path.

E16

Sub F17

109. (Amended twice) A process for stripping insulation of a cable (107) using an apparatus as claimed in claim 108, having the steps of holding a cable (107) in a

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centered manner on at least two sides of the cable during incision with the second rotatable blade (030), and

E17

arranging at least one holding point in an immediate vicinity of said second rotatable blade (030).

110. The process for stripping insulation of a cable (107) as claimed in claim 77, having the step of coupling a blade drive with a clamping drive for a clamping and centering apparatus.

sub F1 E18

111. (Amended) The process for stripping insulation of a cable (107) as claimed in claim 110, wherein said clamping drive is separate from said blade drive.

112. The process for stripping insulation of a cable (107) as claimed in claim 111, having the step of holding at least one of a transporter and centering apparatus non-rotationally.

sub F7 E19

113. (Amended twice) The process for stripping insulation of a cable (107) as claimed in claim 111 having the step of holding said clamping and centering apparatus (111,112).

114. The apparatus as claimed in claim 58, wherein said drive rollers are coated.

sub F17 E20

115 (Amended). The apparatus as claimed in claim 88, further comprising a transporter for transporting a cable with two transport parts that are movable symmetrically to said transport path.

sub F7 E21

116. (Amended twice) The apparatus as claimed in claim 77, wherein said first processing station comprises at least two blade jaws (030) which lie in a plane, each having a cutting edge, which cutting edges are formed at least approximately parallel to one tangential plane each of a cable (107) and can be fully closed and

E21

can be advanced to give different initial contact points on a cable sheath, depending on cable diameter.

Sub F1 E22

117 (Amended). The apparatus as claimed in claim 88, wherein at least one of an upper and a lower roller (111), continuous belts (112) of a pair of rollers, a pair of continuous belts, respectively, and upper and lower tool holders (1) are each displaceable transversely with respect to a transport path (100), relative to an opposite part in each case, so that a twisting procedure can be performed on a cable (107) lying in between.

118 (Amended). The apparatus as claimed in claim 88, wherein a guide apparatus (9) which can be swiveled at least one of laterally and upward or downward is provided to increase insulation stripping lengths, in order to enable a cable (107) already lying on another side of said at least one tool (30) to be moved back against a feed direction without collision between the cable and the guide apparatus.

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119. The process as claimed in claim 86, having at least the step of detecting said closed position by virtue of an encoder associated with said drive motor (23; 16) that loses its steps of rotational movement notwithstanding drive energy.

Sub F1 E23

120. (Amended twice) A continuous cable insulation stripping apparatus as claimed in claim 88, having a first and a second belt drive for a cable feed wherein a gripping apparatus is coordinated with said second belt drive (112b), said second belt drive (112b) releasing [said] a cable (107) so that said cable (107) can be removed by the gripping apparatus.

121. (Amended twice) The apparatus as claimed in claim 39, further comprising a computer that controls said sideward movement of at least one of said pair of tool supports.

122. The apparatus as claimed in claim 88, further comprising a cable absence sensor.

123. (Amended twice) The apparatus as claimed in claim 88, wherein said at least one tool, said at least one tool support and said positioner are within one module.

124. A process as claimed in claim 52, further comprising detecting said closed position of said tool holders or tools by virtue of an encoder (41) connected to or integrated with said drive motor (23; 16) that looses its steps of rotary movement notwithstanding a supply of drive energy, or comes to a stop notwithstanding a supply of drive energy.

125. (Amended twice) The apparatus according to claim 88, comprising a continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative to one another and can be opened and closed in a cable shape-dependent and feed-controlled manner and can be moved together lateral to said transport path.

126. A continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative to one another and can be opened and closed in a cable-dependent and feed-controlled manner and can be

moved together lateral to said transport path, further comprising a control member having a computer which, in an operating state, after input of cable diameter, cable type designation, and desired insulation stripping length, automatically calculates and sets at least one of an initial gap of said rollers or belt drive (A, B; 111; C; 112) and a contact pressure for stripping of insulation sections, and appropriately controls said drives.

127. A continuous cable processing apparatus having rollers or continuous belts for longitudinal transport of a cable along a transport path (100), wherein said rollers (A, B; 111) or continuous belts (C; 112) are located opposite one another across said transport path (100) and are adjustable relative to one another and can be opened and closed in a cable-dependent and feed-controlled manner and can be moved together lateral to said transport path, wherein said rollers (111) or said belts (112) belonging to two pairs of rollers or belts (A, B; 111; C; 112), are programmably adjustable relative to one another by means of at least one of stepping motors, a control, a programmable circuit, and at least one pressure sensor for measuring or evaluating contact pressure on said cable (107).

128. A continuous cable processing apparatus, comprising

a program that contains a control for controllable driving of said apparatus, said program comprising program steps coordinated with individual process steps, a plurality of such program steps being combined to form groups of operations, in which a step sequence is predetermined and control parameters of at least one step are selectable or adjustable,

said groups of operations being called up to trigger a plurality of program steps that are preprogrammed in such a manner as to result in control of drives in step sequence.

129. The apparatus as claimed in claim 126, wherein at least one of an individual program, process steps and control parameters linked therewith in set to at least one of none and desired other parameters via an input unit.

130. The apparatus as claimed in claim 126, wherein a plurality of program groups are combined to form overlapping program groups, and wherein individual program groups are shown as an overview and subsequently in detail on a display, said display permitting interactive correction of given values in individual program steps.

New Sub F1

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131. A continuous cable insulation stripping apparatus comprising two tools, a plurality of tool supports, and an apparatus casing having a front plate, each of said two tools being mounted on a tool support, said tool support being mounted in the apparatus casing wherein said plurality of tool supports are positionable in and out of the front plate of the apparatus casing in a controlled manner into more than two positions.
